

## APPENDIX 1

### DTD: SOXOffer.dtd.

<?xml version="1.0" encoding="UTF-8"?>

<!--

Standard Offer Exchange: Offer DTD

SOXOffer.dtd

Version 1.0 Draft

Date: 06/09/2000

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-->

<!--

-->

<!-- Revision History

-->

<!--

-->

<!-- SOX top element

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<!--

-->

<ELEMENT SOX ((TargetServerList, Offer) | (Offer))>

<!ATTLIST SOX

OfferDistributorID CDATA #REQUIRED

SenderDocUID CDATA #REQUIRED

Version CDATA #REQUIRED

AckRequested (Normal | Terse | Verbose) #REQUIRED

SOXType (Offer) #REQUIRED

>

<!--

-->

<!-- Target Server List element: Optional. Offer Agent Routing Information

-->

<!--

-->

<ELEMENT TargetServerList (Server+)>

<!ATTLIST TargetServerList

ServerCount CDATA #REQUIRED

>

<ELEMENT Server (ServerID, ServicePriority)>

<ELEMENT ServerID (#PCDATA)>

<ELEMENT ServicePriority (#PCDATA)>

<!--

-->

<!-- Offer element: Required. Limit one Offer per document.

-->

<!--

-->

<ELEMENT Offer ((OfferMaintReq, OfferRouteReq) | (OfferMaintReq) | (OfferRouteReq))>

<!ATTLIST Offer

OfferID CDATA #REQUIRED

>

<!--

-->

<!-- Offer Maintenance Request element: Offer Properties, Offer Conditions,

-->

<!-- Offer Rewards not needed for Delete action, required for Add or Replace.

-->

<!--

-->

<ELEMENT OfferMaintReq (OfferProperties, OfferConditions, OfferRewards)?>

<!ATTLIST OfferMaintReq

Action (Add | Replace | Delete) #REQUIRED

>

<!--

-->

<!-- Offer Properties element:

-->

<!--

-->

<ELEMENT OfferProperties (MemberOffer, StaffAllowed, OfferType, OfferXactLimit, OfferCustLimit,  
OfferStartDateTime, OfferEndDateTime, OfferDescription, OfferReportDescription, OfferSponsorSettlementID,  
DeferredReward)>

<ELEMENT MemberOffer (#PCDATA)>

<ELEMENT StaffAllowed (#PCDATA)>

<ELEMENT OfferType (#PCDATA)>

<ELEMENT OfferXactLimit (#PCDATA)>

<ELEMENT OfferCustLimit EMPTY>

<ELEMENT OfferStartDateTime (Year, Month, Day, Hour, Minute)>

<ELEMENT Year (#PCDATA)>

```

<!ELEMENT Month (#PCDATA)>
<!ELEMENT Day (#PCDATA)>
<!ELEMENT Hour (#PCDATA)>
<!ELEMENT Minute (#PCDATA)>
<!ELEMENT OfferEndDateTime (Year, Month, Day, Hour, Minute)>
<!ELEMENT OfferDescription (#PCDATA)>
<!ELEMENT OfferReportDescription (#PCDATA)>
<!ELEMENT OfferSponsorSettlementID (#PCDATA)>
<!ELEMENT DeferredReward (#PCDATA)>
<!-- -->
<!-- Offer Conditions element: -->
<!-- -->
<!ELEMENT OfferConditions (ConditionSet+)>
<!-- OfferConditions
ConditionSetCount CDATA #REQUIRED
>
<!ELEMENT ConditionSet (ItemPurchase | DeptPurchase | TotalPurchase | TimeOfDay | DayOfWeek)>
<!-- ConditionSet
ConditionSetID (0 | 1 | 2 | 3 | 4 | 5 | 6 | 7) #REQUIRED
>
<!-- -->
<!-- Offer Condition: Item Purchase -->
<!-- -->
<!ELEMENT ItemPurchase (ItemList, CondChkFlag, MeasureValue)>
<!-- ItemPurchase
Measure (Quantity | Weight | Amount) #REQUIRED
>
<!ELEMENT ItemList (Item+)>
<!-- ItemList
ItemCount CDATA #REQUIRED
>
<!ELEMENT Item (#PCDATA)>
<!ELEMENT CondChkFlag (#PCDATA)>
<!ELEMENT MeasureValue (#PCDATA)>
<!-- -->
<!-- Offer Condition: Department Purchase -->
<!-- -->
<!ELEMENT DeptPurchase (DeptList, CondChkFlag, Amount)>
<!-- DeptList (Dept+)>
<!-- DeptList
DeptCount CDATA #REQUIRED
>
<!ELEMENT Dept (#PCDATA)>
<!ELEMENT Amount (#PCDATA)>
<!-- -->
<!-- Offer Condition: Total Purchase -->
<!-- -->
<!ELEMENT TotalPurchase (CondChkFlag, Amount)>
<!-- TotalPurchase
Includes (All | Discountable) #REQUIRED
>
<!-- -->
<!-- Offer Condition: Time of Day -->
<!-- -->
<!-- -->
<!ELEMENT TimeOfDay (StartTime, EndTime)>
<!ELEMENT StartTime (Hour, Minute)>
<!ELEMENT EndTime (Hour, Minute)>
<!-- -->
<!-- Offer Conditions: Day of the Week -->
<!-- -->
<!ELEMENT DayOfWeek (Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday)>
<!ELEMENT Sunday (#PCDATA)>
<!ELEMENT Monday (#PCDATA)>
<!ELEMENT Tuesday (#PCDATA)>
<!ELEMENT Wednesday (#PCDATA)>
<!ELEMENT Thursday (#PCDATA)>

```

```

<!ELEMENT Friday (#PCDATA)>
<!ELEMENT Saturday (#PCDATA)>
<!-- -->
<!-- Offer Rewards element: -->
<!-- -->
<!ELEMENT OfferRewards (RewardSet+)>
<!-- ATTLIST OfferRewards
RewardSetCount CDATA #REQUIRED
>
<!ELEMENT RewardSet (ItemDiscount | DeptDiscount | TotalDiscount | FreeItem | ReplacementPriceMethod1)>
<!-- ATTLIST RewardSet
RewardSetID (0 | 1 | 2 | 3 | 4 | 5 | 6 | 7) #REQUIRED
>
<!-- -->
<!-- Offer Reward: Item Discount -->
<!-- -->
<!ELEMENT ItemDiscount (ItemList, RewardLimit, BasisValue)>
<!-- ATTLIST ItemDiscount
Basis (Percent | Amount) #REQUIRED
>
<!ELEMENT RewardLimit (#PCDATA)>
<!ELEMENT BasisValue (#PCDATA)>
<!-- -->
<!-- Offer Reward: Department Discount -->
<!-- -->
<!-- -->
<!ELEMENT DeptDiscount (DeptList, RewardLimit, BasisValue)>
<!-- ATTLIST DeptDiscount
Basis (Percent | Amount) #REQUIRED
>
<!-- -->
<!-- Offer Reward: Total Discount -->
<!-- -->
<!-- -->
<!ELEMENT TotalDiscount (RewardLimit, BasisValue)>
<!-- ATTLIST TotalDiscount
Basis (Percent | Amount) #REQUIRED
>
<!-- -->
<!-- Offer Reward: Free Item -->
<!-- -->
<!-- -->
<!ELEMENT FreeItem (ItemList, RewardLimit)>
<!-- -->
<!-- Offer Reward: Replacement Price Method1 -->
<!-- -->
<!-- -->
<!ELEMENT ReplacementPriceMethod1 (ItemList, DealPrice, DealQuantity, RewardLimit)>
<!ELEMENT DealPrice (#PCDATA)>
<!ELEMENT DealQuantity (#PCDATA)>
<!-- -->
<!-- Offer Route Store Request element: Optional. -->
<!-- -->
<!-- -->
<!ELEMENT OfferRouteReq (StoreList+)>
<!-- -->
<!-- Store List element: Required. -->
<!-- -->
<!-- -->
<!ELEMENT StoreList (Store+)>
<!-- ATTLIST StoreList
Action (Add | Replace | Delete) #REQUIRED
StoreCount CDATA #REQUIRED
>
<!ELEMENT Store (StoreID, ServicePriority)>
<!ELEMENT StoreID (#PCDATA)>

```

# DTD: SOXCustomerOffer.dtd.

<?xml version="1.0" encoding="UTF-8"?>

<!--

Standard Offer Exchange: Customer Offer DTD

SOXCustomerOffer.dtd

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<!--

<!-- Revision History

<!--

<!-- SOX top element

<!--

<ELEMENT SOX ((TargetServerList, CustomerOffer+) | (CustomerOffer+))>

<!ATTLIST SOX

OfferDistributorID CDATA #REQUIRED

SenderDocUID CDATA #REQUIRED

Version CDATA #REQUIRED

AckRequested (Normal | Terse | Verbose) #REQUIRED

CustomerOfferCount CDATA #REQUIRED

SOXType (CustomerOffer) #REQUIRED

>

<!--

<!-- Target Server List element: Optional. Customer Offer Agent Server Routing Information

<!--

<ELEMENT TargetServerList (Server+)>

<!ATTLIST TargetServerList

ServerCount CDATA #REQUIRED

>

<ELEMENT Server (ServerID, ServicePriority)>

<ELEMENT ServerID (#PCDATA)>

<ELEMENT ServicePriority (#PCDATA)>

<!--

<!-- Customer Offer element: Required. One or more Customer Offers per document.

<!--

<ELEMENT CustomerOffer ((CustOfferMaintReq, CustOfferRouteReq) | (CustOfferMaintReq) | (CustOfferRouteReq))>

<!ATTLIST CustomerOffer

OfferID CDATA #REQUIRED

MerchantID CDATA #REQUIRED

CustomerID CDATA #REQUIRED

>

<ELEMENT CustOfferMaintReq ((CustOfferProperties, CustOfferRewards)? | (CustOfferProperties))>

<!ATTLIST CustOfferMaintReq

Action (Add | Replace | Delete | Activate) #REQUIRED

>

<!--

<!-- Customer Offer Properties element:

<!--

<ELEMENT CustOfferProperties ((OfferXactLimit, OfferCustLimit) | (OfferXactLimit))>

<ELEMENT OfferXactLimit (#PCDATA)>

<ELEMENT OfferCustLimit (#PCDATA)>

<!--

<!-- Customer Offer Rewards element:

<!--

<ELEMENT CustOfferRewards (RewardSet+)>

<!ATTLIST CustOfferRewards

RewardSetCount CDATA #REQUIRED

>

<!--

<!-- Customer Offer Rewards Set element: Overrides existing Offer Reward Set.

<!--

```

<!ELEMENT RewardSet (ItemDiscount | DeptDiscount | TotalDiscount | ReplacementPriceMethod1)>
<!-- ATTLIST RewardSet
RewardSetID (0 | 1 | 2 | 3 | 4 | 5 | 6 | 7) #REQUIRED
>
<!-- -->
<!-- Customer Offer Reward: Item Discount -->
<!-- -->
<!ELEMENT ItemDiscount (BasisValue)>
<!-- ATTLIST ItemDiscount
Basis (Percent | Amount) #REQUIRED
>
<!ELEMENT BasisValue (#PCDATA)>
<!-- -->
<!-- Customer Offer Reward: Department Discount -->
<!-- -->
<!ELEMENT DeptDiscount (BasisValue)>
<!-- ATTLIST DeptDiscount
Basis (Percent | Amount) #REQUIRED
>
<!-- -->
<!-- Customer Offer Reward: Total Discount -->
<!-- -->
<!ELEMENT TotalDiscount (BasisValue)>
<!-- ATTLIST TotalDiscount
Basis (Percent | Amount) #REQUIRED
>
<!-- -->
<!-- Customer Offer Reward: Replacement Price Method1 -->
<!-- -->
<!ELEMENT ReplacementPriceMethod1 (DealPrice)>
<!ELEMENT DealPrice (#PCDATA)>
<!-- -->
<!-- Customer Offer Route Store Request element: Optional. -->
<!-- -->
<!ELEMENT CustOfferRouteReq (StoreList+)>
<!-- -->
<!-- Store List element: Required. -->
<!-- -->
<!ELEMENT StoreList (Store+)>
<!-- ATTLIST StoreList
Action (Add | Replace | Delete | Activate) #REQUIRED
StoreCount CDATA #REQUIRED
>
<!ELEMENT Store (StoreID, ServicePriority)>
<!ELEMENT StoreID (#PCDATA)>

```

## DTD: SOXOfferAck.dtd.

<?xml version="1.0" encoding="UTF-8"?>

<!--

Standard Offer Exchange: Offer Acknowledgement DTD

SOXOfferAck.dtd

Version 1.0 Draft

Date: 06/09/2000

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<!--

<!-- Revision History

<!--

<!-- SOX top element

<!--

<ELEMENT SOX ((OfferAck, TargetServerList, Offer) | (OfferAck, Offer))>

<!ATTLIST SOX

Version CDATA #REQUIRED

SOXType (OfferAck) #REQUIRED

>

<!--

<!-- Offer Acknowledgement elements: For this Offer document.

<!--

<ELEMENT OfferAck (DistributorID, AckRequested, SenderDocUID, SessionID, OfrcptCtrlID, SenderID, Date, Time, TimeZone)>

<ELEMENT DistributorID (#PCDATA)>

<ELEMENT AckRequested (#PCDATA)>

<ELEMENT SenderDocUID (#PCDATA)>

<ELEMENT SessionID (#PCDATA)>

<ELEMENT OfrcptCtrlID (#PCDATA)>

<ELEMENT SenderID (#PCDATA)>

<ELEMENT Date (Year, Month, Day)>

<ELEMENT Year (#PCDATA)>

<ELEMENT Month (#PCDATA)>

<ELEMENT Day (#PCDATA)>

<ELEMENT Time (Hour, Minute, Second)>

<ELEMENT Hour (#PCDATA)>

<ELEMENT Minute (#PCDATA)>

<ELEMENT Second (#PCDATA)>

<ELEMENT TimeZone (#PCDATA)>

<!--

<!-- Status and Result elements: For each Offer Agent Server Routing Request

<!--

<ELEMENT TargetServerList (Server+)>

<!ATTLIST TargetServerList

ServerCount CDATA #REQUIRED

>

<ELEMENT Server (ServerID, ServicePriority, Status, Result)>

<ELEMENT ServerID (#PCDATA)>

<ELEMENT ServicePriority (#PCDATA)>

<ELEMENT Status (#PCDATA)>

<ELEMENT Result (ResultCode, ResultSeverity, ResultDescription, ResultCondition)>

<ELEMENT ResultCode (#PCDATA)>

<ELEMENT ResultSeverity (#PCDATA)>

<ELEMENT ResultDescription (#PCDATA)>

<ELEMENT ResultCondition (#PCDATA)>

<!--

<!-- Offer element:

<!--

<ELEMENT Offer ((OfferMaintReq, OfferRouteReq) | (OfferMaintReq) | (OfferRouteReq))>

<!ATTLIST Offer

OfferID CDATA #REQUIRED

>

<!--

-->



DTD: SOXCustomerOfferAck.dtd.

<?xml version="1.0" encoding="UTF-8"?>

<!--

Standard Offer Exchange: Customer Offer Acknowledgement DTD

SOXCustomerOfferAck.dtd

Version 1.0 Draft

Date: 06/09/2000

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<!--

<!-- Revision History

<!--

<!-- SOX top element

<!--

<ELEMENT SOX ((CustOfferAck, TargetServerList, CustomerOffer+) | (CustOfferAck, CustomerOffer+))>

<ATTLIST SOX

Version CDATA #REQUIRED

CustomerOfferCount CDATA #REQUIRED

SOXType (CustomerOfferAck) #REQUIRED

>

<!--

<!-- Customer Offer Acknowledgement elements: For this Customer Offer document.

<!--

<ELEMENT CustOfferAck (DistributorID, AckRequested, SenderDocUID, SessionID, OfrcptCtrlID, SenderID, Date, Time, TimeZone)>

<ELEMENT DistributorID (#PCDATA)>

<ELEMENT AckRequested (#PCDATA)>

<ELEMENT SenderDocUID (#PCDATA)>

<ELEMENT SessionID (#PCDATA)>

<ELEMENT OfrcptCtrlID (#PCDATA)>

<ELEMENT SenderID (#PCDATA)>

<ELEMENT Date (Year, Month, Day)>

<ELEMENT Year (#PCDATA)>

<ELEMENT Month (#PCDATA)>

<ELEMENT Day (#PCDATA)>

<ELEMENT Time (Hour, Minute, Second)>

<ELEMENT Hour (#PCDATA)>

<ELEMENT Minute (#PCDATA)>

<ELEMENT Second (#PCDATA)>

<ELEMENT TimeZone (#PCDATA)>

<!--

<!-- Status and Result elements: For each Customer Offer Agent Server Routing Request

<!--

<ELEMENT TargetServerList (Server+)>

<ATTLIST TargetServerList

ServerCount CDATA #REQUIRED

>

<ELEMENT Server (ServerID, ServicePriority, Status, Result)>

<ELEMENT ServerID (#PCDATA)>

<ELEMENT ServicePriority (#PCDATA)>

<ELEMENT Status (#PCDATA)>

<ELEMENT Result (ResultCode, ResultSeverity, ResultDescription, ResultCondition)>

<ELEMENT ResultCode (#PCDATA)>

<ELEMENT ResultSeverity (#PCDATA)>

<ELEMENT ResultDescription (#PCDATA)>

<ELEMENT ResultCondition (#PCDATA)>

<!--

<!-- Customer Offer element:

<!--

<ELEMENT CustomerOffer ((CustOfferMaintReq, CustOfferRouteReq) | (CustOfferMaintReq) | (CustOfferRouteReq))>

<ATTLIST CustomerOffer

OfferID CDATA #REQUIRED



```

MerchantID CDATA #REQUIRED
CustomerID CDATA #REQUIRED
>
<!-- -->
<!-- Customer Offer Maintenance Request element -->
<!-- -->
<IELEMENT CustOfferMaintReq (CustOfferProperties, CustOfferRewards)?>
<ATTLIST CustOfferMaintReq
  Action (Add | Replace | Delete | Activate) #REQUIRED
>
<!-- -->
<!-- Status and Result elements: For Customer Offer Properties -->
<!-- -->
<IELEMENT CustOfferProperties (Status, Result)>
<!-- -->
<!-- Status and Result elements: For each Customer Offer Rewards Set -->
<!-- -->
<IELEMENT CustOfferRewards (RewardSet+)>
<ATTLIST CustOfferRewards
  RewardSetCount CDATA #REQUIRED
>
<IELEMENT RewardSet (Status, Result)>
<ATTLIST RewardSet
  RewardSetID (0 | 1 | 2 | 3 | 4 | 5 | 6 | 7) #REQUIRED
>
<!-- -->
<!-- Status and Result elements: For each Customer Offer Store Route Request -->
<!-- -->
<IELEMENT CustOfferRouteReq (StoreList+)>
<IELEMENT StoreList (Store+)>
<ATTLIST StoreList
  Action (Add | Replace | Delete | Activate) #REQUIRED
  StoreCount CDATA #REQUIRED
>
<IELEMENT Store (StoreID, ServicePriority, Status, Result)>
<IELEMENT StoreID (#PCDATA)>

```

## 1.1 DTD: SOXErrorResponse.dtd.

<?xml version="1.0" encoding="UTF-8"?>

<!--

Standard Offer Exchange: Error Response DTD

SOXErrorResponse.dtd

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-->

<!--

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<!-- Revision History

-->

<!--

-->

<!-- SOX top element

-->

<!--

-->

<!ELEMENT SOX (ErrorResponse)>

<!ATTLIST SOX

Version CDATA #REQUIRED

SOXType (ErrorResponse) #REQUIRED

>

<!--

-->

<!-- Error Response element: For this document.

-->

<!--

-->

<!ELEMENT ErrorResponse (SenderDocUID, ErrorCode, ErrorDescription, ErrorCondition, ErrorMessage, ErrorSource, Date, Time, TimeZone, SessionID, OfrcptCtrlID, SenderID, DTDErrorList)>

<!ELEMENT SenderDocUID (#PCDATA)>

<!ELEMENT ErrorCode (#PCDATA)>

<!ELEMENT ErrorDescription (#PCDATA)>

<!ELEMENT ErrorCondition (#PCDATA)>

<!ELEMENT ErrorMessage (#PCDATA)>

<!ELEMENT ErrorSource (#PCDATA)>

<!ELEMENT Date (Year, Month, Day)>

<!ELEMENT Year (#PCDATA)>

<!ELEMENT Month (#PCDATA)>

<!ELEMENT Day (#PCDATA)>

<!ELEMENT Time (Hour, Minute, Second)>

<!ELEMENT Hour (#PCDATA)>

<!ELEMENT Minute (#PCDATA)>

<!ELEMENT Second (#PCDATA)>

<!ELEMENT TimeZone (#PCDATA)>

<!ELEMENT SessionID (#PCDATA)>

<!ELEMENT OfrcptCtrlID (#PCDATA)>

<!ELEMENT SenderID (#PCDATA)>

<!ELEMENT DTDErrorList (DTDError+)>

<!ATTLIST DTDErrorList

DTDErrorCount CDATA #REQUIRED

>

<!ELEMENT DTDError (PathName, ErrorCode, ErrorMessage)>

<!ELEMENT PathName (#PCDATA)>